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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,336	06/26/2001	David A. Babbitt	AUS9-2000-0836-US1	2233

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EXAMINER	
PHAN, TAM T	

ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/891,336	BABBITT ET AL.	
	Examiner	Art Unit	
	Tam (Jenny) Phan	2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application has been examined. Claims 1-20 are presented for examination.

Priority

2. No priority claims have been made.

3. The effective filing date for the subject matter defined in the pending claims in this application is 06/26/2001.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayden (U.S. Patent Number 6,018,771) view of Paul (U.S. Patent Number 6,687,817).

6. Regarding claim 1, Hayden disclosed a method for providing multicast information to a client on a computer network, comprising selecting a multicast address at which the information will be multicast (column 6 lines 38-48); determining whether the selected multicast address is being used to multicast information is in conflicts over transmission addresses (column 6 line 62-column 7 line 19); and transmitting the selected multicast address to the client if the selected multicast address is not being used (column 8 lines 27-39).

7. Hayden taught the invention substantially as claimed. However, Hayden did not expressly teach multicasting boot information to a client for bootstrapping process.

8. Hayden suggested exploration of art and/or provided a reason to modify the method for providing multicast information to a client on a computer network with additional feature of providing information such as boot information to a client on a computer network (column 7 lines 54-57).

9. Paul disclosed a method of providing boot information to a client on a computer network for initiating boot sequence on a client (Abstract, Figures 3, 5, 7, column 3 lines 30-65).

10. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Hayden with the teachings of Paul to include multicasting boot information in order to remotely configure a client via network (Paul, column 2 lines 33-46) since network scalability and efficiency are important (Paul, column 1 lines 32-39). In addition, multicasting boot information over the network for bootstrapping process is well known in the art.

11. Regarding claim 2, Hayden disclosed a method wherein determining whether the selected multicast address is being used to multicast information different from the boot information includes transmitting a conflict query (column 4 lines 26-45, column 7 lines 11-19).

12. Regarding claim 3, Paul disclosed a method wherein a plurality of boot server processes is present on the computer network (Figures 4-7, column 3 lines 30-46).

13. Regarding claim 4, Paul disclosed a method further comprising using a file server process to multicast the boot information to the client at the selected multicast address, wherein the file server process and at least one of the plurality of boot server processes are located on different machines (Figures 4-7, column 6 lines 29-46).

14. Regarding claim 5, Paul disclosed a method further comprising: using one of the plurality of boot server processes to notify the file server process that the client will be making a request to the file server process; and using the file server process to transmit an acknowledgement that the file server process is ready for the client to make the request (Figures 4-7, column 2 lines 33-46, column 3 lines 30-55).

15. Regarding claim 6, Paul disclosed a method further comprising configuring the file server process for the request from the client system after receiving notification from the one of the plurality of boot server processes and before sending the acknowledgement (Figures 4-7, column 2 lines 33-46, column 3 lines 30-55).

16. Regarding claim 7, Hayden disclosed a method wherein determining whether the selected multicast address is being used to multicast information different from the boot information includes transmitting a conflict query from a querying boot server process to a remainder of the plurality of boot server processes (column 6 line 62-column 7 line 34).

17. Regarding claim 8, Hayden disclosed a method further comprising selecting a different multicast address if the selected multicast address is being used to multicast information different from the boot information (column 6 line 62-column 7 line 34).

18. Regarding claim 9, Hayden disclosed a method wherein an address conflict is found if one of the remainder of the plurality of boot server processes sends an acknowledgement to the conflict query (Figure 6, column 6 line 62-column 7 line 34).

19. Regarding claim 10, Hayden disclosed a method further comprising marking the selected multicast address as being used and storing the marked selected multicast address in a database (column 6 line 62-column 7 line 34).

20. Regarding claim 11, Paul disclosed a method further comprising using the client to listen at the selected multicast address for the boot information to be multicast (Figures 4-7, column 2 lines 33-46).

21. Regarding claim 12, Paul disclosed a method wherein the client listens at the selected multicast address for a period of time (column 3 lines 19-28, lines 47-65).

22. Regarding claim 13, Paul disclosed a method further comprising: receiving no response during the period of time; and using the client to send a request to a file server process to transmit the boot information at the selected multicast address (column 3 lines 30-46).

23. Regarding claim 14, Paul disclosed a method further comprising using the client to receive the boot information from a file server process that is multicasting the boot information at the selected multicast address (column 3 lines 30-46).

24. Regarding claim 15, Hayden and Paul combined disclose a method for resolving address conflicts on a computer network prior to booting a client, comprising: using a first boot server process on the network to determine whether other boot negotiation server processes on the network are using a first multicast address; and sending the first multicast address to the client if the first multicast address is not being used by the other boot negotiation server processes; selecting a second multicast address if the first multicast address is being used by the other boot negotiation server processes (Hayden, Figure 6, column 6 lines 38-48, column 6 line 62-column 7 line 34, column 8 lines 27-40; Paul, Figures 4-7, column 2 lines 33-46, column 3 lines 30-55).

25. Regarding claim 16, Paul disclosed a method further comprising using the client to listen at the first multicast address to receive boot information (column 3 lines 30-55).

26. Regarding claim 17, Hayden disclosed a method wherein using a first boot server process on the network to determine whether other boot negotiation server processes on the network are using a first multicast address further comprises causing the first boot server process to transmit a conflict query to the other boot negotiation server processes over the computer network (column 6 line 62-column 7 line 34).

27. Regarding claim 18, Hayden and Paul disclosed a pre-boot address management method for configuring a file server process on a computer network to send boot information to a client, comprising: causing a first boot server process on the computer network to select a first multicast address; using the first boot server process to send a query packet to other boot negotiation server processes on the computer network to determine whether the first multicast address is being used to provide information different from the boot information; and using the first boot server process to notify the file server process that the client will be requesting boot information at the first multicast address if the first multicast address is not being used to provide information different from the boot information; wherein the first boot server negotiation process and the file server process are located on separate machines (Hayden, Figure 6, column 6 lines 38-48, column 6 line 62-column 7 line 34, column 8 lines 27-40; Paul, Figures 4-7, column 2 lines 33-46, column 3 lines 30-55, column 6 lines 31-46).

28. Regarding claim 19, Hayden disclosed a pre-boot address management method wherein a response to the query packet is received by the first boot server process if the first multicast address is being used to provide information different from the boot information (column 6 line 62-column 7 line 34, column 8 lines 27-40).

29. Regarding claim 20, Hayden disclosed a pre-boot address management method wherein the first server process selects a different multicast address if the first multicast address is being used to provide information different from the boot information (column 6 line 62-column 7 line 34)

30. Since all the limitations of the claimed invention were disclosed by the combination of Hayden and Paul, claims 1-20 are rejected.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Andrews et al. (U.S. Patent Number 5,835,723) titled "Dynamic assignment of multicast addresses" disclosed a distributed protocol for allocation of multicast addresses. A first node of a network sends an address request message identifying (1) a requested in multicast address, and (2) a multicast group identifier to which the requestor belongs. The request is in multicast on a network address reserved for address resolution. All other nodes of the network monitor the reserved network address for address request messages. If a second node receiving the address request message has already allocated the requested multicast address, then the second node sends an acknowledgment message identifying (1) the already allocated in multicast address, and (2) the multicast group for which the address has been allocated. This acknowledgment is transmitted on the same reserved network address on which the address request was sent. The first node, monitoring the reserved network address, receives the acknowledgment message. If the multicast group identified in the acknowledgment message matches the multicast group to which the first node belongs, then the first node also allocates the requested network address. If the multicast group identified in the acknowledgment message does not match the multicast group to which the first node belongs, then the first node abandons the requested network address. If the first node does not receive an acknowledgment message in response to any number of address request messages repeated for the same requested multicast address, then the first node either (1) allocates the requested network address, or (2) abandons the requested network address, if the node is not the first member of a multicast group to request allocation of the address. If address allocation succeeds, then the first node uses the allocated network address for multicasting. If address allocation fails, then the first node is free to select a different multicast address to request.

b. Aguilar et al. (U.S. Patent Number 6,490,677) titled "Method and system for automatically configuring the boot process of a computer having multiple bootstrap programs within a network computer system" disclosed a method and system for automatically configuring a boot process of a network computer initially connected within a network comprising at least one server. A request is broadcast from a network computer to a network for an available server, upon a first initiation of the network computer within the network. Responses from the broadcast are gathered which indicate whether a server is available. A selected boot program is then executed from among multiple boot programs available in the network computer. The selected boot program and the identity of an available server are stored as boot process configuration settings in a nonvolatile storage of the network computer, in response to successful execution of the boot program, such that a subsequent boot process of a network computer is automatically configured.

c. Kobayashi (U.S. Patent Number 6,567,851) titled "Multicast-session-management device" disclosed a device for multicast-session management provided in a network including one or more servers and a plurality of clients includes a data-exchange interface which receives an original data flow from a server, and multicasts a multicast data flow to the network, a usable-multicast-address-registration unit which stores therein usable multicast addresses, and a destination-address-conversion unit which converts a destination address of the original data flow into a multicast address, the multicast address being selected from the usable multicast addresses stored in said usable-multicast-address-registration unit, wherein said data-exchange interface multicasts the original data flow having the multicast address as the multicast data flow.

d. Murphrey et al. (U.S. Patent Number 6,735,692) titled "Redirected network boot to multiple remote file servers " disclosed a method and system for directing a network boot. The method includes obtaining a bootstrap by a client, the client residing in a subnet; obtaining a configuration file by the bootstrap, where the configuration file comprises a map of subnets and their corresponding file servers; determining from the configuration file a file server corresponding to the client's subnet; and obtaining an operating system (OS) image from the corresponding local file server. The method and system provides a bootstrap which, when loaded onto a client, obtains a configuration file from the remote file server. The configuration file contains a map of the network's subnets and their corresponding local file servers. Using this configuration file, the bootstrap obtains an OS image from the local file server which services the subnet in which the client resides. In this manner, the client can perform a remote boot and have direct access to its local file server, promoting more efficient file transfers.

32. Refer to the enclosed PTO-892 for details and complete listing of other pertinent prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (703) 305-4665 or (571) 272-3930 (new telephone number after October 18, 2004). The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on 703-308-3873 or (571) 272-3925 (new telephone number after October 27, 2004). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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tp
October 15, 2004